

**OCCUPATIONAL SAFETY
AND HEALTH STANDARDS BOARD**

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**NOTICE OF PROPOSED MODIFICATIONS TO
CALIFORNIA CODE OF REGULATIONS**

Title 8: Chapter 4, Subchapter 7, Article 12, Section 3427
of the General Industry Safety Orders.

Tree Climbing and Access

Pursuant to Government Code Section 11346.8(c), the Occupational Safety and Health Standards Board (Standards Board) gives notice of the opportunity to submit written comments on the above-named standards in which further modifications are being considered as a result of public comments and/or Board staff evaluation.

On June 17, 2004, the Standards Board held a Public Hearing to consider revisions to Title 8, Section 3427 of the General Industry Safety Orders, California Code of Regulations. The Standards Board received oral and written comments on the proposed revisions. The standards have been further modified as a result of the comments and Board consideration.

A copy of the full text of the standards as originally proposed, and a copy of the modified text clearly indicating the further modifications, is attached for your information. In addition, a summary of all oral and written comments regarding the original proposal and staff responses is included.

Any written comments on these modifications must be received by 5:00 p.m. on November 19, 2004, at the Occupational Safety and Health Standards Board, 2520 Venture Oaks Way, Suite 350, Sacramento, California 95833. These standards will be scheduled for adoption at a future business meeting of the Standards Board.

The Standards Board's rulemaking files on the proposed action are open to public inspection Monday through Friday, from 8:00 a.m. to 4:30 p.m., at the Standards Board's office at 2520 Venture Oaks Way, Suite 350, Sacramento, California 95833.

Inquiries concerning the proposed changes may be directed to the Executive Officer, Keith Umemoto at (916) 274-5721.

**OCCUPATIONAL SAFETY AND HEALTH
STANDARDS BOARD**

Date: November 2, 2004

Keith Umemoto, Executive Officer

REGULATIONS AS ORIGINALLY PROPOSED

STANDARDS PRESENTATION
TO
CALIFORNIA OCCUPATIONAL SAFETY AND HEALTH STANDARDS BOARD

PROPOSED STATE STANDARD,
TITLE 8, CHAPTER 4

Amend Section 3427 to read as follows:

§3427. Safe Work Procedures.

(a) Climbing and Access.

(1) Prior to climbing the tree, the tree shall be visually inspected by a qualified ~~person~~ tree worker who shall determine and ensure a safe method of entry into the tree. The location of all electrical conductors and equipment within the work area shall be identified in relation to the work being performed.

~~(2) The location of all electrical conductors and equipment within the work area shall be identified in relation to the work being performed.~~

(A) Only when a tree cannot be safely accessed by climbing or the use of aerial devices, a qualified tree worker may be hoisted into position by using an approved tree worker's saddle suspended from a crane's closed safety type hook that is equipped with a device or locking means to prevent the load from becoming disengaged. The tree worker's saddle shall also be secured to an independent line attached above the crane hook, and the following criteria shall be met:

1. All climbing equipment, lines and rigging shall have a minimum breaking strength of at least 5000 pounds.

2. The crane boom and load line shall be moved in a slow, controlled, cautious manner with no sudden movements when the qualified tree worker is attached to the crane.

3. The requirements for hoisting employees by crane in a personnel platform contained in Sections 5004(d)(2), (4), (5), (6), and 5004(e) shall apply to the hoisting of a qualified tree worker suspended in an approved tree worker saddle.

4. The qualified tree worker being hoisted shall be in continuous communication with the crane operator, or signals shall be relayed by a qualified signal person as provided in Section 5001.

5. The crane operator shall remain at the controls when the qualified tree worker is attached to the crane.

6. The qualified tree worker shall be detached from the crane while the load is hoisted.

7. The employer shall ensure that the crane operator and qualified tree worker determine the weight of the load being lifted to prevent the crane from being overloaded.

8. The hoisting of a qualified tree worker shall be promptly discontinued upon indication of any dangerous weather conditions or other impending danger.

NOTE: 1. Other applicable provisions pertaining to crane operations are contained in the General Industry Safety Orders, Group 13, Cranes and Other Hoisting Equipment.

NOTE: 2. For line clearance tree trimming operations, see Article 38 of the High Voltage Electrical Safety Orders.

~~(3)~~(2) The climbing line must be crotched as soon as practical after the employee is aloft, and a taut line-hitch tied and checked.

STANDARDS PRESENTATION
TO
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PROPOSED STATE STANDARD,
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~~(4)~~(3) The climbing rope shall be passed around the main leader or a major upright branch of the tree as high as necessary using branches with a wide crotch to prevent any binding of the safety rope. The crotch selected for tying-in shall be over the work area as nearly as possible, but located in such a way that a slip or fall would not permit the employee to come in contact with any electrical conductor, equipment or other hazard. The rope shall be passed around the main leader or an upright branch, using a limb as a stop. Feet, hands, and ropes should, where possible, be kept out of tight-V-shaped crotches.

~~(5)~~(4) When working aloft, employees shall be required to wear tree workers' saddles and tie-in with an approved safety strap or rope.

~~(6)~~(5) Employees shall remain tied in until the work is completed and they have returned to the ground, unless it is necessary to recrotch.

* * * * *

NOTE: Authority cited: Section 142.3, Labor Code. Reference: Section 142.3, Labor Code.

PROPOSED MODIFICATIONS

(Modifications are indicated by bold, double-underlined for new language and bold, strikeout for deleted language.)

STANDARDS PRESENTATION
TO
CALIFORNIA OCCUPATIONAL SAFETY AND HEALTH STANDARDS BOARD

PROPOSED STATE STANDARD,
TITLE 8, CHAPTER 4

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(a) Climbing and Access.

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~~(2) The location of all electrical conductors and equipment within the work area shall be identified in relation to the work being performed.~~

(A) Only when a tree cannot be safely accessed by climbing or the use of aerial devices, a qualified tree worker may be hoisted into position by using an approved tree worker's saddle ~~suspended from~~ secured to a crane's ~~closed safety type~~ hook that ~~is equipped~~ shall be closed with a positive locking device ~~or locking means to prevent the load from becoming disengaged~~. The tree worker's saddle shall also be secured to an independent line attached above the crane hook, and the following criteria shall be met:

1. All climbing equipment, lines and rigging shall have a minimum breaking strength of at least 5000 pounds.

2. The crane boom and load line shall be moved in a slow, controlled, cautious manner with no sudden movements when the qualified tree worker is attached to the crane.

3. The requirements for hoisting employees by crane in a personnel platform contained in Sections 5004(d)(2), (4), (5), (6), and 5004(e) shall apply to the hoisting of a qualified tree worker suspended in an approved tree worker saddle.

4. Cranes used for tree work shall be equipped with a functional load indicating device.

5. The crane operator shall be familiar with the potential hazards and operational techniques encountered in tree work.

4. 6. The qualified tree worker being hoisted shall be in continuous communication with the crane operator, or signals shall be relayed by a qualified signal person as provided in Section 5001.

5. 7. The crane operator shall remain at the controls when the qualified tree worker is attached to the crane.

6. 8. The qualified tree worker shall be detached from the crane while the load is hoisted.

7. 9. The employer shall ensure that the crane operator and qualified tree worker determine the weight of the load being lifted to prevent the crane from being overloaded.

8. 10. The hoisting of a qualified tree worker shall be promptly discontinued upon indication of any dangerous weather conditions or other impending danger.

NOTE: 1. Other applicable provisions pertaining to crane operations are contained in the General Industry Safety Orders, Group 13, Cranes and Other Hoisting Equipment.

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NOTE: 2. For line clearance tree trimming operations, see Article 38 of the High Voltage Electrical Safety Orders.

(B) Special Training Requirements. The employer shall ensure that every qualified tree worker involved in tree work utilizing a crane to position personnel into a tree under the provisions of Section 3427(a)(1)(A), receives instruction and training on such work and is competent in the following areas:

1. Safe work procedures and knowledge of the hazards applicable to tree work involving the use of cranes.

2. The use of personal protective equipment required for tree work.

3. The inspection and safe use of all climbing equipment, lines and rigging.

4. Crane signals and communication requirements with the crane operator as provided in Section 5001.

5. Instructions regarding electrical hazards as described in Section 3423.

6. The safe use of chain saws in tree work.

7. The conditions and criteria necessary to permit the use of a crane to provide access into a tree.

8. The handling of loads as described in Section 4999 and rigging techniques for tree work.

9. Effective means for controlling pedestrian and vehicular traffic.

(C) Documentation of employee training required by Section 3427(a)(1)(B) shall be maintained as prescribed by Section 3203 of these Orders.

~~(3)~~(2) The climbing line must be crotched as soon as practical after the employee is aloft, and a taut line-hitch tied and checked.

~~(4)~~(3) The climbing rope shall be passed around the main leader or a major upright branch of the tree as high as necessary using branches with a wide crotch to prevent any binding of the safety rope. The crotch selected for tying-in shall be over the work area as nearly as possible, but located in such a way that a slip or fall would not permit the employee to come in contact with any electrical conductor, equipment or other hazard. The rope shall be passed around the main leader or an upright branch, using a limb as a stop. Feet, hands, and ropes should, where possible, be kept out of tight-V-shaped crotches.

~~(5)~~(4) When working aloft, employees shall be required to wear tree workers' saddles and tie-in with an approved safety strap or rope.

~~(6)~~(5) Employees shall remain tied in until the work is completed and they have returned to the ground, unless it is necessary to recrotch.

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NOTE: Authority cited: Section 142.3, Labor Code. Reference: Section 142.3, Labor Code.

SUMMARY AND RESPONSE TO COMMENTS

SUMMARY AND RESPONSE TO WRITTEN AND ORAL COMMENTS

I. Written Comments:

Mr. Michael Kranther, Chief, Risk Management Division, County of Los Angeles Fire Department, by letter dated, May 3, 2004.

Comment:

Mr. Kranther provided advance notice to the Board that the L.A. County Fire Department would be addressing the Board at its June 17, 2004, public hearing regarding the potential impact of the proposal on fire service agencies.

Response:

Mr. Tony Duran, Captain with the L.A. County Fire Department, provided oral comments at the Board's public hearing on June 17, 2004. (See Board's response to Mr. Duran's oral comments.)

Ms. Cynthia Mills, CAE, President, The Tree Care Industry Association (TCIA), by undated letter received June 11, 2004.

Comment No. 1:

Ms. Mills stated that TCIA is a trade organization representing over 150 tree care firms and affiliated businesses either headquartered or doing business in California. Ms. Mills stated that TCIA fully supports the emergency standard that amended Section 3427, and encouraged the Board to adopt a permanent standard. Ms. Mills outlined the challenges and hazards of removing damaged trees, and noted the rationale for why TCIA's safety committee has been working on the issue of crane safety during tree removal.

Ms. Mills stated that tree workers use cranes for tree removal operations when no other safe tie-in point is present. Ms. Mills noted that there have been numerous fatalities and serious injuries resulting from tree work operations on hazardous trees. However, fatality data reflects that in all of the numerous hazardous tree removal jobs in which arborists have used cranes, not one climber in the industry has been killed by a crane failure.

Ms. Mills identified safety issues involving the use of cranes that have been addressed by industry safety professionals and the ANSI Z133.1 standard that has been approved and followed by the entire tree care industry for maintaining and removing trees. Ms. Mills stated that the amendments already made to Section 3427 in the adoption of the emergency standard provide very clear and thorough guidance to the arborist, consistent with what is found in the ANSI Z133.1 standard.

Response:

The Board thanks TCIA for summarizing the history and issues associated with the use of cranes in tree removal work and for their support of the proposal.

Comment No. 2

Ms. Mills recommended several revisions to the proposal. Proposed Section 3427(a)(1) permits a qualified tree worker to enter a tree suspended by the closed safety type hook of the crane. Ms. Mills stated that guided by collective experience of knowledgeable arborists over a 40 year period, the ANSI Z133.1 standard requires the qualified arborists to be tied in [to the crane for hoisting] with an arborist's climbing line and saddle and to be secured to a designated anchor point on the boom or line. Ms. Mills further stated that the ANSI Z133.1 standard recommends against tying into the crane hook when it states, "The arborist climbing line shall be secured to the crane in such a way that it does not interfere with the function of any damage prevention or warning device on the crane, and so that no part of the crane compromises the climbing line or any other component of the climbing system."

Response:

Although the August 12, 2004 advisory committee members discussed provisions in the ANZI Z133.1 standard that permit a qualified tree worker/arborist to be secured directly to the crane boom, the proposed amendments for Section 3427(a)(1) do not permit that practice. TCIA's representative at the committee meeting explained that it is believed that in some cases, being secured to the boom provided more mobility for the tree worker. The committee also discussed that the preferred method or most common method is being secured above the headache ball. The committee agreed that being secured to the crane boom raised safety issues (e.g., movement of the boom and boom extension with a tree worker attached), and it was agreed that the provision was unnecessary for inclusion in the proposal. TCIA representatives still expressed concern regarding the potential that the tree worker's safety line could roll out of the crane's hook while being suspended from it.

Proposed modifications eliminate language referring to a crane's "closed safety type" hook, which is not a defined term and raised clarity issues for some advisory committee members. The proposed modifications require that the crane hook be closed with a positive locking device, and also requires the tree worker saddle to be secured to an independent line attached above the crane hook. It is believed that these modifications will address TCIA's concerns.

Comment No. 3:

Ms. Mills stated that the requirement in Section 3427(a)(3) for the climber to use a "taut line-hitch" is too prescriptive, noting that there are other suitable knots, hitches or mechanical devices that perform safely. Amendments to this subsection were recommended.

Response:

The suggested amendments have merit; however, this subsection is applicable not only to qualified tree workers involved in crane operations, but also to all provisions contained in Article 12 related to tree maintenance or removal work. The scope of subsection (a)(3) is broad based, and was not included in the amendments noticed for public comment. Therefore, amendments to this subsection are outside the scope of this proposal and could be considered in a future rulemaking action.

Comment No. 4:

Ms. Mills concluded by stating that “absent a standard allowing cranes to be used to hoist climbers, tree industry workers remain at serious risk of injury. In order to abide by current Cal/OSHA regulations, they would be forced to either tie into a hazardous tree, or attempt to use a chainsaw within the restricted confines of a steel man cage.” TCIA fully supports the emergency standard and asks the Board to adopt the provisions as a permanent standard with the recommended revisions noted above.

Response:

The Board thanks Ms. Mills and TCIA for their comments and participation in the Board’s rulemaking process.

Mr. Bill Marsh, Manager of Corporate Safety, Southern California Edison, by letter dated June 16, 2004.

Comment:

Mr. Marsh stated that Southern California Edison supports the proposed changes to Section 3427(a) because the proposal (1) is necessary for public safety, (2) is necessary for the safety of tree workers, (3) ensures that a safe method of access is available, and (4) that a qualified tree worker is best suited to determine safe access into trees. Mr. Marsh noted that the ANZI Z 133.1 standard allows for qualified tree workers to be hoisted into position utilizing a crane and the criteria allowing this method of tree entry is included in the proposed revisions to Section 3427(a).

Response:

The Board thanks Mr. Marsh for his comments and participation in the Board’s rulemaking process.

Mr. Steve Thompson, Vice President, Safety Risk Management, Phillips & Jordan, Inc., by letter dated June 16, 2004.

Comment:

Mr. Thompson expressed support for the proposal on behalf of Phillips & Jordan, Inc., and many of its subcontractors under contract to remove dead or dying bark beetle infested trees. The condition of some trees is such that workers can more safely perform their duties by being hoisted by crane into the tree rather than climbing. Mr. Thompson explained that there are hazards involved with removing many of the infested trees and, due to their location, these trees cannot be free felled nor can they be removed by use of an aerial device.

Mr. Thompson stated that subcontractors under contract with Phillips & Jordan have worked safely since November of 2003, in accordance with the ANSI Z133.1 standard, and with no injuries related to the use of a crane to hoist tree workers. He stated that 63,857 trees have been removed since October 31, 2003, and the percentage of trees removed using a crane has been reduced from 15 to 13 percent. Mr. Thompson emphasized that cranes are not used in tree removal work for any economical advantage, and while utilizing a crane may not be the most economical way to remove bark beetle and burned trees, it is a necessary, safe method that needs to be available.

Response:

The Board thanks Mr. Thompson for his comments and participation in the Board's rulemaking process.

Mr. Lennie Ellis, Assistant Business Manager, International Brotherhood of Electrical Workers, IBEW Local 659, Central Point, Oregon, by documents submitted at the June 17, 2004, Public Hearing.

Comment:

Mr. Ellis submitted documents from Oregon OSHA in question and answer format dated June 26, 1995, and March 20, 2003.

Response:

These documents provide responses from Oregon OSHA to questions, such as whether the hook of a crane can be used as an anchor point for a fall arrest system, and other items/issues that are not related to the proposal. Therefore, the Board is unable to respond to these comments.

The Board thanks Mr. Ellis for his comments and participation in the Board's rulemaking process.

II. Oral Comments

Oral comments received at the June 17, 2004, Public Hearing held in Glendale, California.

Mr. Antonio Duran, Captain, representing the Los Angeles County Fire Department.

Comment:

Mr. Duran stated that the L.A.F.D. is supportive of safety standards for their employees, and that currently, their training and qualification standards and procedures far exceed current standards as well as the proposed standard. However, not all fire departments statewide have the capability of meeting the standard and he asked that the Board take this into consideration in the implementation process. Mr. Duran added that the definition of a “qualified tree worker” in the proposal is ambiguous and needs clarification. He stated that his main reason for attending the meeting was to remind the Board of L.A.F.D.’s interest in participating in a possible advisory committee to address standards specific to fire services.

Response:

Board staff contacted the L.A.F.D. for clarification of the comment that not all fire departments have the capability of meeting the standard. Mr. Michael Kranther, Chief, Risk Management Division, concurred with Board staff that the proposal did not directly impact fire departments since they are not hoisting qualified tree workers into trees by crane for tree work. The main reason for making their comments was to remind the Board of L.A.F.D.’s interest in participating in advisory committees that address standards specific to fire services.

L.A.F.D. did, however, participate in the August 12, 2004, advisory committee meeting. To address their concerns about the definition of a “qualified tree worker,” specific instruction, training and areas of competence were developed for the proposal at the advisory committee that are required of qualified tree workers involved in the utilization of a crane to position personnel.

The Board thanks Mr. Duran for his comments and participation in the Board’s rulemaking process.

Mr. Don Milani, Safety Director, representing the Associated California Loggers.

Comment No. 1:

Mr. Milani stated that the Associated California Loggers support the proposal, as written, and assured the Board that if the proposal was adopted, the use of cranes to access trees would not become a standard work practice in the logging industry.

Response:

The Board thanks Mr. Milani for his support of the proposal.

Comment No. 2:

Mr. Milani (later in the public hearing) commented that there are a lot of independent contractors that are joining together and working as independent contractors so that there are no employees involved. This might contribute to some of the inexperience found at the worksite. Moreover, there are a lot of employees coming from out-of-state that are not familiar with California safety requirements. Mr. Milani also noted that as the tree removal project continues, it is becoming less clear as to where tree removal ends and logging begins. He stated that he toured the area in question last year and was horrified at what some of the so-called “loggers” were doing. Mr. Milani noted that the Governor’s Order regarding the removal of dead, dying and diseased trees in Riverside, San Bernardino and San Diego Counties specified that the employee must be an LTO, licensed timber operator, but did not specify what license was required. Mr. Milani stated that there are three licenses under the LTO classification: A, B, and C. The C license is for the landowner logging his own property. The B license is for someone cutting firewood and shingles, but not really logging, and which most of those people in the tree removal project possess. Finally, the A license requires the owner to demonstrate 3,000 hours of work in the woods, plus carry insurance. He emphasized that this issue will need to be addressed in the near future with regard to worker qualifications.

Response:

The Board thanks Mr. Milani for his comments and participation in the Board’s rulemaking process. Comments regarding the license classification for loggers is not directly related to this proposal, but could be addressed as a separate issue relating to the Logging and Sawmill Safety Orders.

Mr. Patrick Lavin, Business Manager, representing the International Brotherhood of Electrical Workers (IBEW) Local 47.

Comment No. 1:

Mr. Lavin stated that he testified at the April 15, 2004, public meeting on the emergency tree access standard, and requested that the Board proceed with caution with regard to this proposal. He stated that while the practice of using a crane to put people into a tree is one of the safest methods to use, it is not the only method. Mr. Lavin reiterated his comment from the April public meeting that if the issue is the structural integrity of the tree, then the worker should not be permitted to work from the tree while cutting it down. (See also the oral comment by tree worker, Eric Schatz, regarding the benefits of utilizing a crane in tree removal work.)

Response:

The structural integrity of trees being removed with the assistance of a crane was discussed at the advisory committee. Board staff and the committee agreed that each tree must be evaluated for damage and that the qualified tree worker was best qualified to make the determination as to which tree removal method was safest.

Comment No. 2:

Mr. Lavin stated that he had researched Board staff's comment at the April public meeting regarding Oregon and Washington's use of this practice and found a lot of ambiguities. He stated that through IBEW Local 659, he brought with him a certified arborist from the State of Oregon who has experience in working in both Oregon and Washington to provide testimony with regard to this practice.

Response:

The State of Washington has adopted a Regional Directive, (WRD) 20.75, that permits a qualified arborist to be hoisted into position using a crane in accordance with the procedures in the ANSI Z133.1 standard for removing trees. Board staff was advised by Oregon OSHA that the practice is also permitted in Oregon in accordance with the provisions in ANSI Z133.1 for removing trees. However, Oregon does not have a regional directive and therefore, depending on who was contacted within Oregon OSHA, inconsistent responses may have been received about the use of cranes in tree removal work. With respect to testimony from IBEW Local 659 from Oregon, see the oral and written responses to Mr. Lennie Ellis's comments.

Comment No. 3:

Mr. Lavin was asked what his understanding was of the term "qualified tree worker," and the amount of training that would be required to conduct these types of aerial operations. Mr. Lavin stated that his Local represents approximately 3,000 line clearance tree trimmers, and that he understands that California requires 18 months of experience trimming trees around power lines in order to receive that certification.

Response:

Board staff believes that Mr. Lavin is describing the qualifications of a "qualified line clearance tree trimmer" for employees engaged in tree work in close proximity to electrical equipment and conductors. A "qualified line clearance tree trimmer" is defined in the High Voltage Electrical Safety Orders as a person who has completed 18 months of related training and on-the-job experience and is familiar with the special techniques and hazards involved in line clearance tree trimming operations.

The Board thanks Mr. Lavin for his comments and participation in the Board's rulemaking process.

Dialogue between Board Members and Board Staff

Comment:

Board Member Arioto asked for clarification of what the term "qualified tree worker" means in the standard.

Response:

Mr. George Hauptman, Senior Safety Engineer with the Standards Board, responded stating that Article 12 defines a qualified tree worker as “an employee, who through related training and on-the-job experience, has demonstrated familiarity with the techniques and hazards of tree maintenance, removal, and equipment used in the specific operations involved.” Mr. Hauptman stated that he interprets this to mean that the employee must be able to demonstrate on-the-job experience and be familiar with the hazards involved, and emphasized that the employee is to be familiar with the “specific operations involved.”

Comment:

Ms. Arioto questioned whether the use of cranes to access trees was a consideration when the term “qualified tree worker” was developed.

Response:

Mr. Hauptman responded that although the ANSI standard that permits the practice dates back to 1982, around the time Article 12 was adopted, it was probably not a consideration when the term was defined.

Comment:

Board Member Navarro asked for clarification with regard to the on-the-job training requirements for tree removal work.

Response:

Mr. Hauptman responded by reiterating the definition of a qualified tree worker, but emphasized that the focus should not be directed merely to Section 3427, but to the entire Article pertaining to tree work. He noted some of the general, tree-work related requirements, which include the implementation of an accident prevention program that includes training on job-specific hazards. Also, a record of the job-specific training is required, and the training is to be conducted prior to the work being performed. Moreover, a job briefing, which includes a description of the job-specific hazards and the work practices to be followed, is required to be conducted by a qualified tree worker before each work assignment is begun.

Comment:

Board Member Arioto expressed concern that based on her observations at the Lake Arrowhead tree removal operations, employees are not being properly trained in the hazards of this type of work and she emphasized that training is the key to compliance. Board member Navarro stated that compliance should be improved. Additionally, Mr. Navarro asked whether the training is the responsibility of the employer.

Response:

Mr. Hauptman affirmed that training is the responsibility of the employer, as are all the other tree work related requirements. With respect to compliance concerns, Mr. Len Welsh, Acting Chief for the Division, stated that the Division has been out to these worksites and has done sweeps of various areas. He further added that compliance personnel cannot be everywhere at the same time. He concurred that there are some problems, but that they are related to tree work in general, and not specifically related to the use of cranes as far as the Division can tell.

Mr. Bill Marsh, Corporate Safety Manager, Southern California Edison.

Comment No 1:

Mr. Marsh stated that he had a written comment and submitted it for the record. Mr. Marsh clarified that the bulk of the tree work being performed in the Lake Arrowhead area does not require a qualified line clearance tree trimmer, unless the work actually involves clearance around exposed high voltage energized lines. Mr. Marsh stated that Section 2951 of the High Voltage Electrical Safety Orders (HVESO) addresses the requirements for line clearance tree trimmers. Mr. Marsh stated that if the work encroaches within the minimum 10-foot distance of any exposed high voltage energized lines, the HVESO requires the employer to contact the local utility company to have the line deenergized and grounded.

Response:

The Board thanks Mr. Marsh for his comment.

Comment No 2:

Board Member Murray asked Mr. Marsh whether a sub-apprentice is qualified to make a possible life-threatening decision. Mr. Marsh responded stating that both qualified line clearance tree trimmers and qualified electrical workers are required to complete a certain amount of training prior to being assigned a specific task, including the hazards associated with the job, and the documentation of such training. Mr. Marsh noted that an apprentice receives much of their on-the-job training working in hazardous conditions under the supervision of a qualified person; that's how they get their experience. Mr. Marsh stated that in answer to Mr. Murray's question, if that apprentice were performing the same work without the supervision of a qualified person, then yes, it would be hazardous.

Response:

The Board thanks Mr. Marsh for his response and participation in the Board's rulemaking process.

Mr. Lennie Ellis, Assistant Business Manager representing IBEW, Local 659 of Medford, Oregon.

Comment No. 1:

Mr. Ellis stated that he has been a journeyman line clearance tree trimmer for 30 years. He stated that after reading all the articles, he doesn't understand how a tree can be unsafe to climb and yet safe for a man to stand in. Mr. Ellis stated that this does not seem to be appropriate to him.

Response:

Qualified tree workers have stated that there are methods to check the outside layer of bark at a specific point on the tree trunk where access and tie-in is planned in order to remove the tree with the assistance of a crane. At the advisory committee meeting held on August 12, 2004, it was concluded that the qualified tree worker who must enter the tree is the most qualified person to determine if a tree is safe to access for removal with the assistance of a crane.

Comment No. 2:

Board Member Arioto asked Mr. Ellis what the rule was in Oregon regarding using a crane to place a worker in a tree and asked if he had a copy of that rule with him. Mr. Ellis stated that the only rule he was aware of was that a man could work from a stationary crane hook, but could not leave the crane. Mr. Ellis stated that he had a copy of the rule and would leave it with the Board secretary.

Response:

With respect to Oregon safety rules or standards, see the response to Mr. Lavin's oral comment no. 2.

Comment No. 3:

Board Member Murray asked Mr. Ellis whether Oregon standards had the terms, "qualified tree worker" and "qualified line clearance tree trimmer," and whether there were specific training requirements for a qualified tree worker. Mr. Ellis responded that Oregon uses both terms, and that there are no specified training requirements for a qualified tree worker, other than the training has to be documented, but that no time frame is specified. He stated that a qualified line clearance tree trimmer requires two years of training.

Response:

The Board thanks Mr. Ellis for his response.

Comment No. 4:

Mr. Ellis recommended that if the standard is implemented, the practice should be limited to unique situations, such as the bark beetle infestation.

Response:

Board Staff agreed with the majority consensus of stakeholders at the advisory committee in that limiting the standard to bark beetle infested trees would be too restrictive. The rationale for this is that there are many other tree diseases, situations and locations of trees that require the use of a crane to safely remove or maintain the tree.

Moreover, with regard to the emergency standard relative to this proposal, the Board affirmatively opted not to limit the scope to bark beetle infested trees.

Comment No. 5:

Mr. Ellis stated (later in the meeting) that as a qualified tree trimmer, he does not understand why a manlift or another crane could not be used along with the first crane during this tree removal work; one crane for the employee to work from and the other to remove the tree parts.

Response:

Qualified tree workers and other representatives of tree work companies have expressed that a man basket, manlift, or personnel platform suspended by a crane would make it difficult to access the tree because tree branches would interfere with the process. Tree removal companies have also indicated that it is expensive to use a crane for tree removal work. Board staff believes that the use of two cranes at each job site would be cost prohibitive. Further, on some job sites, limited space could prohibit the proper set up of two cranes with outriggers fully extended.

The Board thanks Mr. Ellis for his comments and participation in the Board's rulemaking process.

Mr. Hank Rivera, Safety Engineer, Division of Occupational Safety and Health (Division).

Comment:

Mr. Rivera stated that he is currently a Division Engineer, but that he was formerly employed with So. California Edison for 36½ years, was a member of IBEW #47, and was a qualified line clearance tree trimmer. Mr. Rivera explained to the Board that based on his experience, he was initially against the proposal. However, after an extensive review of the work conditions, i.e., the effects of fire and bark beetle damage to these trees and their location, he is convinced that utilizing a crane to access the trees for removal is in some cases the safest method. Mr. Rivera explained the crane tree access procedure in detail and provided pictures to the Board depicting the method. Mr. Rivera noted that with regard to training, he examines and analyzes the employers' training records and makes a case-by-case determination, in conjunction with management, as to whether or not it is sufficient.

Response:

The Board thanks Mr. Rivera for his response.

Dialogue between Board Members and Division Representatives.

Comment No.1:

Board Member Murray stated that he thought that the crane method of accessing the trees had been in use since last November. Mr. Rivera stated that he did not think it was, but that he was asked to make an assessment as to whether this method was safe prior to the development and implementation of the emergency standard. Mr. Murray asked Mr. Rivera whether, based on his knowledge of the standard and the operation and his observations regarding the qualifications of those performing the work, if he felt these workers were capable of making these decisions. Mr. Rivera stated that it depends on the individual employee, but that the responsibility is up to the employer to make that determination. Mr. Murray asked whether Mr. Rivera was making spot checks as to the type of qualifications these workers are supplying to the employer. He asked how the Division knows for sure that the person is in fact “qualified.” Mr. Rivera remarked that his direction was to oversee the restoration project that was being done by So. California Edison. He noted that the project is big, involving over 500-600 employees and several companies, but that he did in fact review and validate some of their training records and made spot checks as well. He reminded the Board of the Governor’s Order to remove all bark beetle damaged trees.

Response:

The Board thanks the Mr. Rivera for his response.

Comment No. 2:

Board Member Murray asked whether Mr. Rivera felt that the training these employees have received was adequate. Mr. Welsh, Acting Chief for the Division, responded by asking the Board to understand that this situation is the aftermath of a natural disaster, and that the Division has put forth a lot of time and energy in addressing and managing the kinds of issues being raised with this training question. Mr. Welsh noted that given a disaster of this scale, and the length of time for recovery, employees are working at a hurried pace. Mr. Welsh stated that training funds requested for this project were denied, but for future disasters, the Division will seek to secure training funds early on. He emphasized that while the training that these employees have varies, it will never be enough given the unique circumstances involved. He again reiterated that the training issue should be considered in light of the entire Article 12, not the specific section.

Response:

The Board thanks Mr. Welsh for his response.

Comment No. 3:

Mr. Murray asked Mr. Rivera whether the use of cranes for this work has increased since the emergency standard was adopted. At the time the emergency standard was adopted, it was estimated that the crane method was used in approximately 15-16% of the tree removal work. Mr. Hauptman responded stating that, based on a comment letter, that number has been reduced to about 13%.

Response:

The Board thanks Mr. Hauptman for his response.

Comment No. 4:

Board Member Harrison stated that, based on his observation regarding emergency situations, there may be deficiencies in our standards that can be addressed. Should these disasters happen in the future, we will have a better definition of what a “qualified tree worker” is, in which case, the Division will be better equipped to enforce the standard and employers will know what to focus on with respect to training. Chair Rank concurred, expounding on his experience in an advisory committee meeting setting where they were asked by the Division to quantify a qualified person in a specific industry. Mr. Welsh stated that there appears to be agreement for clarity in the standard and offered the Division’s assistance should the Board wish to convene an advisory committee to address the issue.

Response:

Board staff convened an advisory committee that was held on August 12, 2004, which included representatives from the Division. The Board thanks the Division for their response.

Mr. Steve Thompson, Vice President, Safety Risk Management, representing Phillips & Jordan, Inc.

Comment No. 1:

Mr. Thompson stated that they are the primary contractor with So. California Edison for the removal of the bark beetle damaged trees for San Bernardino and Riverside Counties. He noted that he has provided written comments to the Board secretary. Mr. Thompson commented that, on the business side, there has to be some forethought and coordination before a crane can be used. He noted that if the trees could have been identified at an earlier stage in their death, then they probably could have been climbed. He confirmed Mr. Hauptman’s referenced statistic that crane use has decreased by 2%. Mr. Thompson also confirmed that cranes have been used since November, stating that his company felt that in some cases this was the safest method. Board Member Arioto asked whether they had contacted Cal/OSHA prior to utilizing cranes. Mr. Thompson stated that they did contact Cal/OSHA in November 2003, and had also carefully reviewed the standard and studied the procedure and independently made the determination that this procedure was, in some cases, the safest. Mr. Thompson noted that they have 375 workers

employed under various contractors, and as the general contractor, they have two safety officers on site at all times. They have also hired consultants to ensure that adequate training is achieved.

Response:

The Board thanks Mr. Thompson for his comments. (See also the response to Mr. Thompson's written comments.)

Comment No. 2:

Board Member Murray asked Mr. Thompson why there appears to be a downturn in the use of cranes. Mr. Thompson noted that he wished to dispel the myth that it is economically advantageous to use a crane, and noted that his company dealt with the most devastated trees initially.

Board Member Harrison commented that perhaps clarifying revisions are needed. Mr. Thompson responded that to him, the standard, as written, is very clear. Mr. Thompson stated that in his opinion, the qualified tree worker must make the decision as to whether or not the method he chooses is the safest.

Response:

The Board thanks Mr. Thompson for his comments.

Comment No. 3:

Mr. Thompson stated that his company is involved in disaster recoveries, and that under no circumstance should the health and safety of employees be sacrificed just because it's a disaster. He stated that his company spent 1.7 million man-hours assisting in the 9/11 disaster recovery. He emphasized that there is no reason why adequate programs cannot be implemented to reduce accidents.

Response:

The Board thanks Mr. Thompson for his comments and participation in the Board's rulemaking process.

Mr. Jeffrey Lee, Technical Director, representing Branch Management Company.

Comment:

Mr. Lee stated that Branch Management is a training company and that he has been doing tree work for 20 years. He is a certified arborist and a certified tree worker. He stated that he is currently working with Phillips & Jordan, Inc. in providing training to their employees. Mr. Lee stated that it is important to carefully define the term, "qualified tree worker," noting that the general term, as applied in the industry, covers groundmen, climbers, and truck operators as

well. He also cautioned confusing the term “qualification” with “certification.” For this standard, Mr. Lee suggested keeping the definition of a qualified tree worker specific to crane operations.

Response:

Mr. Lee participated in the advisory committee in this matter and assisted with the development of language in proposed Section 3427. Mr. Lee’s comments have merit in that amending the definition of a “qualified tree worker” in the definition section of Article 12 [Section 3420(b)] would affect a number of tree work operations that are outside the scope of this rulemaking proposal. Proposed Section 3427(a)(1)(B) outlines instruction, training and competence for qualified tree workers that are engaged in tree work utilizing a crane to position personnel.

The Board thanks Mr. Lee for his comments and participation in the Board’s rulemaking process.

Eric Schatz, tree worker, and interest party to this rulemaking action.

Comment:

Mr. Schatz stated that he is an A-licensed timber operator, a licensed tree service contractor, and has also compiled and operates “Lead Climb,” a 12-man tree-related rescue team. Mr. Schatz stated that his view on the proposal, as with all his other endeavors, is safety. He noted that he gave testimony at the Board’s April 15, 2004, public meeting, and is available to answer any questions posed by the Board. Board Member Murray asked Mr. Schatz whether he would be available to participate on an advisory committee convened on this subject. Mr. Schatz responded that he would. Mr. Schatz also cautioned the Board about limiting the geographical scope of the standard, stating that the bark beetle will not limit itself to just that area. Mr. Schatz added that the benefit of utilizing cranes to access these trees is that the tree worker can look down into the tree and visually determine whether it is safe to enter, what parts are weak, etc. He stated that the primary contractor, Phillips & Jordan, Inc., constantly reminds the workers to carefully make the determination as to whether the tree is safe to access or not. Board Member Murray clarified that he had proposed that only the emergency standard be limited in scope to a specified geographical area, not the regular standard being heard today.

Response:

Mr. Schatz attended and participated in the August 12, 2004, advisory committee meeting. The Board thanks Mr. Schatz for his comments and participation in the Board’s rulemaking process.